

Electrical Topics and Syllabus

1- Electrical Circuits

1. Series and Parallel circuits.
2. Single wire, two wire, and three wire circuits.
3. Simple calculation of current, voltage, and resistance.
4. Testing of circuit, navigation light circuit etc.

2- Electrical Instruments

1. Ammeter
2. Voltmeter
3. Mugger
4. Circuit's principle of these above instruments and construction details.

3- UNITS

1. Fair knowledge of Electrical units.

4- BASIC KNOWLEDGE

2. Residual magnetism
3. Lines of force
4. induce e.m.f
5. ohm's law

5- MACHINES

1. Principles and working of AC & DC generators.
2. Principles and working of AC & DC motors.

6- MAIN SWITCHBOARD

1. Knowledge of operation and maintenance of instruments and safety devices fitted on main panel.
2. Putting Alternator/Generators in parallel. / Parallel connections of generators.
3. Synchronization of generators or motors.
4. Fault tracing in generators, alternators and motors.

Important Questions (Please visit www.tiportal.weebly.com for answers and help)

- What is the difference between series and parallel circuit?
- How to trace out fault in an electrical circuit?
- How circuit breaker work?
- How fire alarm work and how to check it?
- Describe the working principle of navigation light?
- How many types of navigation lights in the ship?
- How to turn emergency generator on load?
- What is the meaning of navigate?
- What does synchronization means?
- How to overhauling motor if it drops in the sea?
- What is current, voltage and resistance?
- What is power factor and what does it's importance?
- What is fire and its types?